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## PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

60003206-1

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November 9, 2007

on

Signature

*Colette Angle*

Typed or printed  
name

Colette Angle

Application Number

09/941,884

Filed

08/28/2001

First Named Inventor

Garcia

Art Unit

2853

Examiner

Nguyen, Lam S.

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

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applicant/inventor.

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assignee of record of the entire interest.

See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.  
(Form PTO/SB/96)

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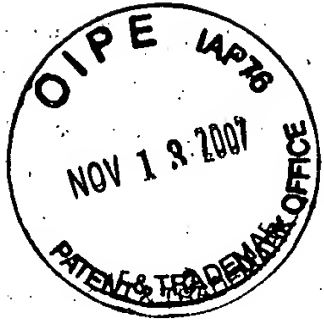
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PRE-APPEAL BRIEF REQUEST FOR REVIEW

The claims at issue, 2, 4, 5, 7, 11, 13, 14 and 16, are set out at pages 2-5 of the "Response to Office Action" paper filed June 20, 2007.

Claims 2, 4-5, 11 and 13-14 have been rejected as allegedly being unpatentable over Arquilevich et al. (6,137,592, "Arquilevich") in view of Dunand (6398334).

Claims 7 and 16 have been rejected as allegedly being unpatentable over Arquilevich in view of Dunand and Maeda et al. (6,334,659, "Maeda").

Claim 2 is drawn to a diagnostic method for visual detection of poor media advance calibration in an ink-jet printing system, comprising:

[A] entering a diagnostic mode of the printing system in which mode normal printing jobs of the printing system are not printed;

[B] printing different areas of a diagnostic pattern at different passes of one or more ink-jet printheads with a controlled amount of media advances between the passes, to accumulate media advance error between the printing of the different areas; and

[C] examining the diagnostic pattern to determine whether the accumulated media advance error is sufficiently objectionable to take corrective action; and

wherein said printing different areas comprises:

[D] printing a first area comprising a first set of pixels printed during a first pass;

[E] conducting a plurality of incremental media advances;

[F] printing a further area comprising a second set of pixels printed during a further pass, wherein said different areas are nominally aligned along a horizontal line, and wherein media advance errors resulting from said plurality of media advances are accumulated between printing said first area and printing said further area.

The references do not describe or render obvious the method defined by Claim 2.

Arquilevich is drawn to a method for adjusting drive roller linefeed distance. "A difference in feed roller diameter from one printer to another causes a media to advance by a different amount for a given rotation of a drive

shaft to which the feed roller is coupled. Such variation in advance distance is a linefeed error. Mean linefeed error is determined and corrected by printing a test plot having several areas. Each area is formed of the same image pattern, but is printed at a different linefeed error adjustment to compensate for mean linefeed error. The different adjustments are prescribed and span a typical compensation range for a given print engine model. The different adjustment factors cause banding to occur in some areas. The user picks one of the test pattern areas which has the highest print quality (i.e., least or no banding). The linefeed adjustment factor corresponding to such area is used for normal printing." (Abstract)

The Office asserts at pages 2-3 of the office action that Arquilevich discloses "printing different areas of a diagnostic pattern at different passes of one or more ink-jet printheads with a controlled amount of media advances between the passes between the printing of the different areas; wherein said different areas (*FIG. 5 and columns 6, lines 35-45*)," and that printing different areas comprises "printing a first area comprising a first set of pixels printed during a first pass; conducting a plurality of incremental media advances; printing a further area comprising a second set of pixels printed during a further pass, wherein said different areas are nominally aligned along a horizontal line (*FIG. 5 and columns 6, lines 35-45*)."

Applicants respectfully disagree. Arquilevich does not disclose the features of paragraphs B, D, E or F of Claim 2.

FIG. 5 of Arquilevich discloses several test plots, each printed with a different linefeed error adjustment. However, none of the plots show printing different areas of a diagnostic pattern at different passes of one or more ink-jet printheads with a controlled amount of media advances between the passes between the printing of the different areas, wherein said different areas are nominally aligned along a horizontal line. Arquilevich does not describe that a given horizontal line of any one of the areas (82, 84, 86, 88, 90) is printed using different passes of the printhead with a controlled amount of media advances between the passes, and, particularly that media advance errors

resulting from the plurality of media advances are accumulated between printing the first area and printing the further area.

Nor does the Office point out how FIG. 5 of Arquilevich shows a method as recited in Claim 2, wherein the different areas are nominally aligned along a horizontal line. In the "Response to Arguments" section of the final rejection, the Office stated, with applicants' comments noted in bold:

The applicant argued that Arquilevich did not teach wherein the different areas are nominally aligned along a horizontal line. In response, the examiner cites that as clearly shown in Arquilevich's FIG. 5, the test plot has a plurality of non-overlapping areas formed using a different value of the swath height error adjustment. (*Claim 1; column 10, lines 35-40*). **[Note: the plurality of non-overlapping areas referred to here are not nominally aligned along a horizontal line.]** The non-overlapping areas read on the different claimed areas because they are formed at different passes (swaths) of the inkjet head (*FIG. 2, element 3*) with the pass (swath) height error adjustment, wherein in a scanning type inkjet printers, a media sheet is fed incrementally at a controlled amount as a printhead scans across the media sheet (*column 1, lines 13-16*) **[Note: media sheet is not described as being fed incrementally as the printhead scans across the media when printing the test plot. Nor is there any description of operations corresponding to paragraphs E and F in Claim 2]** Moreover, Arquilevich's FIG. 5 also shows the non-overlapping areas aligned along a horizontal line. **[The Office has not described which non-overlapping areas of FIG. 5 are aligned along a horizontal line. Applicants submit that FIG. 5 does not support this allegation.]**

Thus, these assertions by the Office do not address all features of Claim 2, for example, those in paragraphs D, E and F. There is no description of conducting a plurality of media advances between printing a first area and a second area, wherein "said different areas are nominally aligned along a

horizontal line, and wherein media advance errors resulting from said plurality of media advances are accumulated between printing said first area and printing said further area."

Dunand is cited for allegedly disclosing "a process of printing on a printing medium in which the printing medium is advanced plurality of times in order to form a printed pattern by an ink jet printing system, wherein an advancing error is accumulated, and the printed pattern is examined to determine whether the accumulate media advance error is sufficiently objectionable to take corrective action (*column 10, line 22-26: If the accumulated advance error reaches a half of a nominal advance, the program will choose to use the reference mark to print the next band*), wherein the step of examining the diagnostic pattern is conducted by an optical sensor (*column 7, lines 39-42*)."

Dunand describes a process for compensation of a defect in the advance of a print substrate by modifying the arrival position of ink droplets with a variable electrical charge on the substrate. Each band of droplets is printed with a mark on the margin or edge of the substrate, the substrate is advanced to print the next band, an algebraic difference is determined between a nominal theoretical position of the mark and the real position of the mark, a correction to the value of the charge voltage to be applied to each droplet to compensate for the position error is determined, and the substrate correction is applied to each droplet in the next band, in addition to the nominal voltage. (Abstract) Thus, the printing of the mark is performed during printing of normal print jobs, and not during a diagnostic mode in which normal printing jobs of the printing system are not printed, see paragraph A of Claim 2. Nor does Dunand describe the features of paragraphs D, E and F of Claim 2, conducting a plurality of media advances between printing a first area and a second area, wherein "said different areas are nominally aligned along a horizontal line, and wherein media advance errors resulting from said plurality of media advances are accumulated between printing said first area and printing said further area." The Office asserts that it would have been obvious to modify the method of Arquilevich to

include determining whether an accumulated media advance error is sufficiently objectionable to take corrective action as allegedly disclosed by Dunand, and that the motivation of doing so would have been to correct misalignment defects caused by the differences between the real advance of the printing system and its nominal advance as allegedly taught by Dunand.

Applicants respectfully disagree, and point out that there is no reasoned statement as to how Arquilevich would be modified. Arquilevich describes a diagnostic plot performed to illustrate the effects of different line advance distances, or different swath height error adjustment distances, affect the image quality, so the user can visually inspect the various areas in FIG. 5 to pick the one with the best image quality. Arquilevich does not address the problem addressed by the subject matter of the claims at issue, i.e. how to determine when the error is sufficiently objectionable to take corrective action. In contrast, in the method of Claim 2, by conducting a plurality of media advances between printing different areas, the advance errors are accumulated, thereby increasing the effect of accumulated errors and the apparent visual effect. See paragraph [0010] of applicants' specification.

Because there is no apparent modification of Arquilevich which one of ordinary skill would undertake to arrive at the claimed subject matter, and all claim limitations are not present in the references, a prima facie case of obviousness of Claim 2 has not been established.

Similar considerations apply to Claim 11. The rejections of the dependent claims which depend from Claims 2 and 11 should also be withdrawn or reversed.

Claims 7 and 16 have been rejected as allegedly being unpatentable over Arquilevich in view of Dunand and Maeda. This ground of the rejection should be withdrawn or reversed for the reasons discussed at page 8 of the response paper filed June 20, 2007.